

INTERNAL OSTEOTOMY FIXATION DEVICE

Abstract of the Disclosure

An internal osteotomy fixation apparatus is provided. The device comprises a distal plate including a channel. A slide is slidably received within the channel such that the slide is translatable with respect to the distal plate along a first axis. A proximal plate is hingedly connected to the slide, such that the proximal plate has two degrees of freedom relative to the distal plate. A ledge protruding from a first portion of the proximal plate is configured to support a proximal bone segment when the device is implanted. The slide includes ratchet teeth. A ratchet arm including teeth is attached to the distal plate, and configured to engage the slide ratchet teeth. A cross-section of the ratchet arm is configured to maintain a constant stress level along a flexed portion of the arm. The distal plate includes a shelf upon which the ratchet arm rests. Compressive loads borne by the device are translated through the shelf to the distal plate. A minimum length of the device is related to the longer of the ratchet arm or the segment of teeth on the slide. The distal plate includes a hole through which a release mechanism is accessible.

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